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# **Cornell Commodity Promotion Research Program: Summary of Recent Research Projects**

**by**

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# **The National Institute For Commodity Promotion Research and Evaluation**

The National Institute for Commodity Promotion Research and Evaluation was initially funded by a CSRS Special Grant in April 1994. The Institute is an offshoot of The Committee on Commodity Promotion Research (NEC-63). A component of the Land Grant committee structure to coordinate research in agriculture and related fields, NEC-63 was established in 1985 to foster quality research and dialogue on the economics of commodity promotion.

The Institute's mission is to enhance the overall understanding of economic and policy issues associated with commodity promotion programs. An understanding of these issues is crucial to ensuring continued authorization for domestic checkoff programs and to fund export promotion programs. The Institute supports specific research projects and facilitates collaboration among administrators and researchers in government, universities, and commodity promotion organizations. Through its sponsored research and compilations of related research reports, the Institute serves as a centralized source of knowledge and information about commodity promotion economics.

The Institute is housed in the Department of Agricultural, Resource, and Managerial Economics at Cornell University in Ithaca, New York as a component of the Cornell Commodity Promotion Research Program.

## **Institute Objectives**

- Support, coordinate, and conduct studies to identify key economic relationships and assess the impact of domestic and export commodity promotion programs on farmers, consumers, and the food industry.
- Develop and maintain comprehensive databases relating to commodity promotion research and evaluation.
- Facilitate the coordination of multi-commodity and multi-country research and evaluation efforts.
- Enhance both public and private policy maker's understanding of the economics of commodity promotion programs.
- Facilitate the development of new theory and research methodology.

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# **Cornell Commodity Promotion Research Program: Summary of Recent Research Projects**

Harry M. Kaiser and Jennifer L. Ferrero\*

## **Mission**

The Cornell Commodity Promotion Research Program's (CCPRP) mission is to conduct and sponsor research that improves the overall understanding of commodity promotion programs and their economic impacts. Approximately \$1 billion is spent annually on domestic commodity and export promotion programs in the United States. Because of the large amount of money invested in generic promotion, the research conducted by the CCPRP provides crucial information to policy makers deciding whether to continue authorization for domestic commodity checkoff programs funding for export promotion programs. Members of the CCPRP work with administrators and researchers in government, other universities, and commodity promotion programs in conducting various research projects. Examples of some of the research questions addressed by the CCPRP include:

- How do specific promotion programs impact prices, sales, and profits?
- Do the benefits of these programs outweigh the costs?
- Are there alternative ways to allocate generic promotion dollars to maximize the return on investment from these programs?
- Do consumers benefit or lose from commodity promotion programs?
- How do promotion programs impact other agricultural programs, e.g., price support programs?
- Can commodity promotion programs be a viable alternative to other agricultural policies in providing support to farmers?

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\* The authors are, respectively, associate professor and editor in the Department of Agricultural, Resource, and Managerial Economics at Cornell University. Harry M. Kaiser is also the director of the Cornell Commodity Promotion Research Program (CCPRP). Jennifer L. Ferrero is an editor in the CCPRP.

The CCPRP is housed in the Department of Agricultural, Resource, and Managerial Economics at Cornell University in Ithaca, New York, and is directed by Dr. Harry M. Kaiser.

### **Affiliated Institutions**

CCPRP is closely affiliated with three other organizations: (1) National Institute for Commodity Promotion Research and Evaluation (NICPRE), (2) New York State Milk Promotion Order, and (3) NEC-63 Research Committee on Commodity Promotion. NICPRE is funded by a special grant from Congress, has objectives similar to CCPRP, and is managed by the staff of CCPRP. The New York State Milk Promotion Order is responsible for generic milk and dairy product promotion, and supports research projects by CCPRP aimed at evaluating the economic impacts of this promotion. NEC-63 consists of a group of individuals from academia, government, and industry interested in research on commodity promotion economics, and CCPRP staff are active members of this committee.

### **Staff**

#### ***Director***

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Harry M. Kaiser, an associate professor of agricultural economics, joined Cornell's faculty in 1985. His two main areas of research are commodity promotion economics and agricultural policy analysis. Professor Kaiser has authored 40 journal articles, one book, five book chapters, and 60 research bulletins in these areas, and is the director of the Cornell Commodity Promotion Research Program. In 1987, Kaiser was a co-recipient of the Distinguished Group Extension Award given by the American Agricultural Economics Association and in 1990, he was a co-recipient of the Northeastern Journal of Agricultural and Resource Economics Article of the Year. The three classes Professor

Kaiser teaches are Price Analysis, Mathematical Programming, and Dairy Markets and Policy.

For many agricultural commodities, government price intervention has led to excess production relative to commercial market needs with the result being costly acquisitions by the federal government. Much of my research has focused on the market impacts of demand and supply management alternatives aimed at reducing excess production. On the demand side, I have examined the economic impacts of producer-financed promotion programs on raising sales and prices and reducing government purchases of commodities. On the supply side, I have looked at the welfare effects on producers, processors, consumers, and tax payers of a variety of supply management policies including complete and partial deregulation, mandatory and voluntary supply control, target price-deficiency payments, and price supports. While most of my research has been applied to the dairy industry, I have examined many other commodities as well, including eggs, corn, soybeans, wheat, sorghum, and red meat. As director of CCPRP, my goal is to conduct high quality research that has practical importance for both policy makers and commodity promotion organizations.

### *Advisor*

Olan D. Forker, Professor Emeritus  
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Olan Forker, a professor of agricultural economics, joined the Cornell faculty in 1965. He was department chair for nine years, a faculty member of the Cornell University Board of Trustees for four years, and has been a member of a medium-size food processing company's board of directors since 1974. He has served as president of the American Agricultural Economics Association Foundation and was recently elected president of the Northeastern Agricultural and Resource Economics Association. His sabbatical leaves have been spent in the USDA, at the University of Manchester in England, and at the University of Florida in Gainesville. He has conducted research and/or made major presentations in Turkey, Japan, and Spain.

In 1972, I began research on the economics of fluid milk advertising in New York state markets. Since then I, along with my research associates here and colleagues at other universities,

have learned a great deal about the economic relationship between advertising expenditures and sales of advertised commodities. For example, research indicates a positive relationship between advertising and sales. It also raises many other questions concerning uncertainties associated with the determination of the appropriate advertising expenditure level and appropriate programs. I chair a national committee made up of colleagues from academia and industry interested in this subject. In addition to the work on generic advertising, I am interested in marketing and pricing questions in general.

### ***Research Associate***

Chanjin Chung

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B.S. 1980 (Kon-Kuk University, Seoul, Korea)

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Chanjin Chung joined Cornell University as a research associate in November 1996. He recently earned a doctorate in agricultural and applied economics at the University of Minnesota. His dissertation developed an economic simulation model and evaluated potential impacts of soybean biotechnology on the U.S. soybean and related markets. This model has been evaluated as one of the most comprehensive dynamic models of soybean and soybean product markets to date. Utilizing his academic training and seven years of industry experience, he has conducted several research projects in the areas of marketing, agribusiness, and applied economics.

The importance of evaluating the economic impacts of advertising agricultural commodities has increased substantially in recent years with the rise in advertising expenditures. Although there is considerable literature available on the evaluation of commodity advertising, much work needs to be done to provide more accurate evaluation. Utilizing previous research and my industry experience, my work at Cornell University will focus on developing advanced advertising models, which can offer better evaluation estimates and more effective commodity advertisement strategies to commodity promotion agents.

***Research Associate***

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M.S. 1991 (London School of Economics, London)

Ph.D. 1997 (University of Minnesota)

In March 1997, Philip Vande Kamp joined Cornell University as a research associate in the CCPRP. He recently earned a doctorate in agricultural and applied economics at the University of Minnesota. In his dissertation research, Philip investigated the increased use of long-term production and marketing contracts in the pork industry. An economic model which included heterogeneous producers and production and marketing contracts was developed and used to assess the relative importance of several incentives for entering into long-term contracts in the pork industry. In addition, Philip has recently completed research in agricultural policy including U.S. domestic policy and international trade and environmental policy.

Considerable research has been performed on the economic impact of commodity promotion programs in recent years. Using my strengths in economic theory and quantitative analysis, my goal is to build upon past research by investigating current and alternative approaches to measuring commodity promotion effectiveness. Assessing the performance of generic commodity promotion programs and providing insights into the improvement of these programs are also an important part of my research objectives. In addition to marketing, other research interests include production economics and agricultural policy.

***Research Support Specialist***

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Todd Schmit joined CCPRP as a research support specialist in 1996. Todd has held this research position in the Department of Agricultural, Research, and Managerial Economics since finishing his master's degree in 1994.

My research agenda within CCPRP and NICPRE primarily involves providing technical support. The work I'm doing in this area focuses on evaluating the effectiveness of generic commodity promotion in terms of consumer and producer impacts. My research work outside of the two programs centers on two projects related to the environment. One is evaluating the economic impacts of environmental regulations on agricultural production and the other is assessing the implications of drinking water regulations on small public water systems.

### ***Editor***

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Jennifer Ferrero, a professional editor, joined the Cornell staff in the fall of 1995. Prior to working at Cornell, she worked for three years on the UCD campus newspaper editing and proofreading advertisements. She also worked in the information technology department of a capital investment firm in San Francisco in addition to her regular load of freelance editing work. While in college, Jennifer majored in international relations with a minor in English. She grew up in California and has lived in many places throughout the state.

What I enjoy most about the work I currently do with the Cornell Commodity Promotion Research Program in the ARME department is the variety of projects. I have the chance to combine my love of editing with my love of creating. I'm currently using my computer skills to launch a page on the web and hopefully I'll be able to continue increasing the quality of my work by mastering different software programs. I plan on becoming more involved with the annual conferences of the NEC-63 group including the regular publishing of the proceedings. My current activities involve editing the *NICPRE Quarterly* and other projects as needed.

### ***Administrative Assistant***

Linda Morehouse

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Linda Morehouse is an administrative assistant who came to the Cornell Commodity Promotion Research Program in August of 1995. Prior to that, she worked in the Department of Agricultural, Resource, and Managerial Economics for 12 years. Linda has previously assisted professors who taught large courses and enjoyed the challenge of working with a multitude of students. She especially enjoyed the experience of working with Professor Dan Sisler.

In August of 1995, I became the administrative assistant for the Cornell Commodity Promotion Research Program. This new position has been a nice change of pace from such a heavy teaching load. It has given me the opportunity to work with another aspect of Cornell--research. My responsibilities include: all travel-related activities for two professors, two research assistants, and one professional editor; I assist in setting up meetings all over the country for two groups--NEC-63 (Research Committee on Commodity Promotion) and NICPRE (National Institute for Commodity promotion Research & Evaluation). I manage two large database programs and I work with two small undergraduate courses, Dairy Markets & Policy and Price Analysis, 50 and 65 students, respectively. I am in charge of mailing the *NICPRE Quarterly* newsletter and also periodic research papers. I have learned many new software packages, put together two brochures, and assisted in the publishing of the books, New Methodologies in Commodity Promotion Research and Economic Evaluation of Commodity Promotion Programs in the Current Legal and Political Environment.

### **Objectives and Progress to Date**

The overall purpose of the CCPRP is twofold: (1) to provide the public with information to help them judge the appropriateness of continuing authorization for commodity checkoff programs and continuing support of export promotion programs, and (2) to collaborate with and provide information to boards of directors and managers of commodity promotion checkoff programs to help them better utilize promotion funds. The CCPRP serves as a central source of knowledge about the economics of commodity promotion checkoff programs. Specific objectives include:

1. Support, coordinate, and conduct studies to identify key economic relationships and assess

the impact of domestic and export commodity promotion programs on consumers, the food industry, farmers, and taxpayers.

2. Develop and maintain a comprehensive database on commodity promotion research and evaluation.
3. Facilitate the development of new theory and research methodology.
4. Facilitate the coordination of multicommodity and multicountry research and evaluation efforts.
5. Enhance understanding of the economics of commodity promotion programs on the part of both public and private policy decision-makers through educational outreach programs.

The following is a progress report on CCPRP activities designed to fulfill the above objectives.

#### Identification of Key Economic Relationships and the Assessment of the Impact of Commodity Promotion Programs

One of the central objectives of the CCPRP is to complete existing projects and to develop new ones that address the evaluation of domestic and export promotion programs including those funded by the federal government. Specific projects that have high priority are:

1. Measurement of the economic impact on sales (consumer behavior) and farmer returns from specific domestic commodity promotion programs. Several kinds of economic models have been developed; this research builds on the experience of the past 20 years. Single and multiple equation econometric models are used to estimate promotion effects on consumer and industry behavior, and farmer returns. To measure the net effect of promotion programs, one needs to account for effects of other economic factors such as own price and supply, consumer purchasing power, the prices of competing goods, inflation, population changes, and trends in taste and productivity. (See below: Projects 94-4, 94-5, 94-7, 94-9, 94-10, 94-12, 95-1, 95-2, 96-3, 96-4, 97-2, 97-3, 97-4, 97-7.)
2. Determine the economic benefits of export promotion programs. Since these programs are partially funded by federal appropriations, potential benefits needing to be considered include impacts on the volume and/or value of exports, and impacts on domestic employment,

economic growth, and net returns to farmers. (See: Projects 94-6, 95-5, 95-6, 97-6.)

3. Estimate the cross-commodity effects of commodity checkoff programs. A demand systems approach will be used to address this issue; new methodologies will also be explored. (See: Project 94-3.)
4. Determine economic benefits to farmers providing funds through checkoff programs. Some models have already been developed to estimate the impact on farm-level prices and account for farmers' supply responses. Other benefits are possible, e.g., better feedback to farmers concerning consumer preferences for product form and improvements in marketing and distribution efficiencies. (See: Project 94-4, 97-5.)

#### Development and Maintenance of Comprehensive Databases

In order to accomplish the empirical work envisioned above, a relatively large amount of additional data must be collected and archived. Some of these data, such as production levels, inventories, and prices, are available from public sources. Other data, such as program assessment and expenditure levels, must be collected from Leading National Advertisers (LNA), which is the only comprehensive national source of generic and branded advertising expenditure levels. Under this objective, the CCPRP has established a procedure for collecting the data and has put in place a computerized database at Cornell University. Currently, data on generic and branded food advertising expenditures have been entered into a computer database for 1988-94. We are planning to obtain a few more years worth of data prior to 1988, as well as continuing to update the data yearly. A system will also be established to make this data available to researchers at other universities and to directors and managers of promotion organizations. (See: Project 94-2.)

#### Development of New Theory and Research Methodology

Most of the economic evaluation effort to date has involved the measurement of consumer response to generic advertising. Little effort has been devoted to measuring the economic impact of other types of program activities such as in-store displays or demonstrations, new product development, new product research, basic research, nutrition programs, public relations, or educational programs. To address these issues, the CCPRP is developing appropriate theories and methodologies. This is a continuous process. (See: Project 94-8, 96-1, 97-1, 97-4.)

## Facilitate the Coordination of Research and Evaluation Efforts

The coordination of research and evaluation has been and will continue to be accomplished through a series of annual meetings, at least two each year, held in conjunction with the meetings of NEC-63, the Committee on Commodity Promotion Research. These meetings provide visibility for groups involved in commodity promotion evaluation research. They also provide a means of coordination and a way of encouraging continual input to enhance the quality of research efforts. The CCPRP has developed a publication series through NICPRE as a way to compile information and make research results in this area more readily available to researchers and practitioners. The database discussed above includes a list of references with abstracts that are published annually and is now online.

## Educational Outreach

The CCPRP has sponsored two types of outreach activities to communicate useful information on the economics of checkoff programs. The first is the publication of the *NICPRE Quarterly*, which is a quarterly newsletter initiated in the first quarter of 1995. Information for the newsletter is collected and edited by Cornell staff and published by Cornell University. Members of NEC-63 and others from academia, government, and industry contribute information. The newsletter is distributed to more than 500 people in academia, government, industry, and commodity promotion organizations. NICPRE Research Bulletins are also published and distributed to this mailing list. These research bulletins are papers written by researchers and provide further details on the data, estimation, models, results, and conclusions of their research projects.

The second type of project involves sponsorship of workshops, forums, conferences, and oral presentations devoted to extending research results to elected and appointed government officials and interested parties in the commodity promotion industry. The CCPRP has organized meetings of management from commodity promotion groups to discuss research priorities, sponsored a conference on commodity promotion economics at Cornell University, presented written and oral testimony to Congress on the impacts of generic dairy promotion, presented oral presentations at meetings sponsored by various commodity promotion organizations, and organized sessions at professional meetings on commodity promotion evaluation topics. (See: Projects 94-1, 94-11.)

## **Research Projects**

The CCPRP has conducted and sponsored numerous projects over the past several years. The following is a list, a brief description, and citations for any publications that resulted from the specific projects that have been initiated since 1994.

### **94-1 Advisory and Steering Committee Activities (Kaiser and Forker @ Cornell University) -**

A continuing project from April 15, 1994. Advisory and steering committees have been appointed. A joint meeting of the two committees was held on September 27-28, 1994 in Ithaca, New York, on September 11-12, 1995 in Annapolis, Maryland, and in Ithaca, New York on September 12-13, 1996. Minutes were kept and distributed. The committees provided guidance on the structure of the National Institute for Commodity Promotion Research and Evaluation (NICPRE), the direction of research, the purpose and nature of a newsletter, and the coordination of NICPRE activities with the needs of the promotion industry and the government.

### **94-2 Data Archive for Commodity Promotion Research (Kaiser, Lenz, and Forker @ Cornell University) -**

A continuing project from April 15, 1994. The emphasis is on the collection of information on generic advertising expenditures for the major commodities and the maintenance of a database on research reports relating to evaluation and management of commodity promotion programs. Advertising expenditures for all food products are being compiled in a computer database.

#### *Publications:*

Forker, O.D. and C. Clary. "Data Requirements for the Economic Evaluation of Commodity Promotion Programs." At a Professional Development Seminar of the 1994 National Agri-Marketing Association Annual Conference held April 5-8, 1994 in Indianapolis, Indiana.

### **94-3 Cross-Commodity Effects of Commodity Advertising Programs (Kaiser @ Cornell University) -**

A continuing project with completion by September 30, 1997. Data has been and is being collected under Project 94-2 to estimate the impact of generic and brand advertising for commodities that have federal checkoff programs. This project involves a systems approach to determine the cross-commodity effects of each program on the other.

### **94-4 Effectiveness and Allocation of Dairy Industry Generic Promotion Funds (Kaiser @ Cornell University) -**

An annual evaluation and report for this project have been completed each of the past four years and will continue to be done over the life of this project. The most recent report

was published in July 1996. In this study, data for the estimation of retail, wholesale, and farm demand and supply functions were updated through quarter three of 1995. The model was re-estimated with the new data. The estimated model was used to simulate the impacts of various generic advertising expenditure levels on market prices and quantities, as well as government purchases of products under the price support program. Also, the model simulated the impact on market prices and quantities of alternative allocations of advertising funds among fluid milk, cheese, and butter.

*Publications:*

Kaiser, Harry M. "The ABCs of Economic Evaluation of the National Generic Dairy Promotion Program." Presentation Made at the Annual Meeting of Cooperatives held July 15, 1996 in Boston, Massachusetts.

Kaiser, Harry M. "Impact of National Dairy Advertising on Dairy Markets." Paper Presented at the Annual Conference of the *Western Economic Association International Association* held July 1, 1996 in San Francisco, California.

Kaiser, Harry M. "Impact of National Dairy Advertising on Dairy Markets, 1984-95." NICPRE Research Bulletin 96-5, National Institute for Commodity Promotion Research and Evaluation, Department of Agricultural, Resource, and Managerial Economics, Cornell University, July 1996.

Kaiser, Harry M. "Are Dairy Farmers Getting Their 15 Cents Worth?" *Hoard's Dairyman* 141(1996):714.

Kaiser, Harry M. "An Analysis of Generic Dairy Promotion in the United States." NICPRE Research Bulletin 95-1, National Institute for Commodity Promotion Research and Evaluation, Department of Agricultural, Resource, and Managerial Economics, Cornell University, July 1995.

Kaiser, H.M. "An Economic Evaluation of the National Generic Dairy Promotion Program." Presentation Made at the Annual Meeting of Dairy Management Inc. held May 24, 1995 in Washington, D.C.

Kaiser, Harry M. and Olan D. Forker. "Dairy Promotion Raises Consumption." *Hoard's Dairyman* 140(1995):587.

Kaiser, Harry M. and Olan D. Forker. "Economic Impacts of National Generic Dairy Advertising." *NICPRE Quarterly* 3(1995):1-3.

Kaiser, H.M. and O.D. Forker. "The Economics of National Generic Dairy Promotion." Written and Oral Testimony Before the House Livestock, Dairy, and Poultry Subcommittee given May 16, 1995 in Washington, D.C.

Kaiser, Harry M. and Nobuhiro Suzuki. "Imperfect Competition Models and Commodity Promotion Evaluation: The Case of U.S. Generic Dairy Advertising," in New Methodologies for Commodity Promotion Economics. Kaiser, Kinnucan, and Ferrero (eds). Proceedings of the NEC-63 Conference held October 5-6, 1995 in Sacramento, California. Ithaca: NICPRE, 1996.

Kaiser, H.M., O.D. Forker, J.E. Lenz, and C. Sun. "Evaluating Generic Dairy Advertising Impacts on Retail, Wholesale, and Farm Milk Markets." *The Journal of Agricultural Economics Research* 44(1993):3-17.

Suzuki, N., H.M. Kaiser, J.E. Lenz, K. Kobayashi, and O.D. Forker. "Evaluating Generic Milk Promotion Effectiveness with an Imperfect Competition Model." *American Journal of Agricultural Economics* 76(1994):296-302.

**94-5 Advertising Wearout in Generic Promotion Programs** (Reberte, Kaiser, Lenz, and Forker @ Cornell University) - This project was completed in July 1995. This project estimated the duration of generic advertising campaigns before viewers became indifferent toward the advertising message. A case study of fluid milk advertising in the New York City market was examined. Regression analysis was conducted to determine the relation between the level of advertising and the rate at which changes occur in awareness and attitude. The results indicated that wearout patterns followed an inverted u shape, with advertising elasticities increasing in earlier periods, reaching a maximum point, and then decaying in later months.

#### *Publications:*

Reberte, J. Carlos, Harry M. Kaiser, John Lenz, and Olan D. Forker. "Generic Advertising Wearout:



the Case of the New York City Fluid Milk Campaign." *Journal of Agricultural and Resource Economics* 21(2):199-209.

Reberte, J.C., H.M. Kaiser, J. Lenz, and O.D. Forker. "Generic Advertising Wearout: The Case of the New York City Fluid Milk Campaign." NICPRE Research Bulletin 95-3, National Institute for Commodity Promotion Research and Evaluation, Department of Agricultural, Resource, and Managerial Economics, Cornell University, July 1995.

**94-6 Effects of Nonprice Export Promotion in the Presence of Farm Programs** (Kinnucan and Duffy @ Auburn University) - A continuing project since April 1994. An equilibrium displacement model and static optimization models of the U.S. cotton and wool industries have been developed to determine the impact of changes in price support policies, tariffs, export subsidies, and promotion subsidies on producer welfare and treasury outlays for price support, and to indicate optimal market allocation rules for promotion funds. Fiber demand models have been estimated for cotton, wool, polyester, and rayon utilizing quarterly data for 1977-95 to estimate market responses to wool and cotton promotions.

*Publications:*

Ding, L. Optimal State Decisions Rules for Allocating Advertising Funds between Domestic and Foreign Markets: U.S. Cotton, M.S. Thesis, Auburn University, Spring 1996.

Ding, L. and H. W. Kinnucan. "Market Allocation Rules for Nonprice Promotion with Farm Programs: U.S. Cotton." *Journal of Agricultural and Resource Economics* (forthcoming).

Kinnucan, H. W. and K. Z. Ackerman. "Public Funding of Foreign Market Development Programs," in Public Policy and in Foreign and Domestic Market Development. Padberg (ed). Department of Agricultural Economics: Texas A&M University, 1995.

Kinnucan, H. W. and J. E. Christian. "A Method for Measuring Returns to Nonprice Export Promotion with Application to Almonds." *Journal of Agricultural and Resource Economics* (forthcoming).

Kinnucan, H. W. and L. Ding. "Nonprice Export Promotion with Market Distortions and Spillovers: The Case of IWS Wool Promotion in the U.S." (in review with *American Journal of Agricultural Economics*).

Kinnucan, H. W., P. A. Duffy, and K. Z. Ackerman. "Effects of Price vs. Nonprice Export Promotion: The Case of Cotton." *Review of Agricultural Economics* 16 (1995): 91-100.

Kinnucan, H. W., P. A. Duffy, and L. Ding. "Optimal Promotion in Protected Industries." (in review with *American Journal of Agricultural Economics*).

**94-7 Advertising Response in Northeast Fluid Milk Markets** (Lenz @ Cornell University) - A continuing project. Equations have been estimated for New York City, Albany, and Syracuse based on monthly data from 1986 through 1995. Preliminary estimation has been performed for three other markets. The advertising coefficients provide an estimate of consumer response to the advertising efforts. Present results indicate that the response in Buffalo is considerably greater than the response in the other markets. The model is now being estimated with data through 1996.

*Publications:*

Lenz, John, H.M. Kaiser, and C. Chung. "An Economic Analysis of Generic Milk Advertising Impacts on Markets in New York State." NICPRE Research Bulletin 97-2, National Institute for Commodity Promotion Research and Evaluation, Department of Agricultural, Resource, and Managerial Economics, Cornell University, April 1997.

Lenz, John, H.M. Kaiser, and C. Chung. "An Economic Analysis of Generic Milk Advertising Impacts on Markets in New York State." (in review with *Agribusiness: An International Journal*).

**94-8 Use of Supermarket Scan Data for Promotion Campaign Evaluation** (Capps and Nichols @ Texas A&M University) - A continuing project. The primary thrust of this project is to determine whether gross rating points or advertising expenditures are a better measure of advertising effort. A Rotterdam demand system model has been developed and the data have all been collected. The next step is to conduct non-nested procedures to determine which of the two measures of advertising effort are superior.

*Publications:*

Capps, Jr., O. "Uses of Supermarket Scanner Data in Economic and Market Research." *Journal of AGSI* 2 (1995): 46-52.

Capps, Jr., O., S. C. Seo, and J. P. Nichols. "On the Estimation of Advertising Effects for Branded Products: An Application to Spaghetti Sauces." *Journal of Agricultural and Applied Economics* (forthcoming).

**94-9 Economic Implications of The Generic Advertising of Lowfat Products** (Kaiser and Reberte @ Cornell University) - This project was completed in July 1995. The purpose of this project was to determine whether or not there was a statistical difference in sales responsiveness of advertising among whole, lowfat, and skim milk consumers. A case study for New York City was presented using monthly time series demand data from 1986 through 1992. Separate per capita demand functions were estimated for whole, lowfat, and skim milk when per capita generic fluid milk advertising expenditure was used as one of the explanatory variables. The sales responsiveness was found to be positive and statistically significant at the 10 percent level for whole and lowfat milk, but not significant for skim milk.

*Publications:*

Kaiser, Harry M. and J. Carlos Reberte. "Impact of Generic Fluid Milk Advertising on Whole, Lowfat, and Skim Milk Demand." *Journal of Dairy Science* 79(1996):2284-2291.

Kaiser, Harry M. and J. Carlos Reberte. "The Impact of Generic Fluid Milk Advertising on Whole, Lowfat, and Skim Milk Demand." *NICPRE Quarterly* 3(1995):2.

Kaiser, H. M. and J.C. Reberte. "Impact of Generic Fluid Milk Advertising on Whole, Lowfat, and Skim Milk Demand." NICPRE Research Bulletin 95-2, National Institute for Commodity Promotion Research and Evaluation, Department of Agricultural, Resource, and Managerial Economics, Cornell University, July 1995.

Lenz, J. and O.D. Forker. "The Farm Level Economic Implications of Shifts Toward Lowfat Fluid Milk Products." Presentation Given to the staff of Dairy Management, Inc. on September 28, 1994.

**94-10 The Effectiveness of Different Media in Generic and Brand Advertising Programs** (Clary @ New Mexico State University) - This project continues until June 1997. The objective of this project is to measure the relative effectiveness of different mass media vehicles (TV, radio, newspaper, magazines, and outdoor) used in both generic and brand advertising programs on the farm level demand for milk. A farm-level derived demand model incorporating retail- and wholesale-level

supply and demand relationships will be used to estimate the effectiveness of generic and brand dairy advertising expenditures on farm-level milk prices.

**94-11 Commodity Promotion Research Newsletter/Education Program** (Lenz, Ferrero, and Kaiser @ Cornell University) Continuous. All four quarter issues were published for 1995 and 1996. An annotated bibliography of commodity promotion research was published as a supplement to the newsletter in early 1996.

**94-12 The Relationship Between Consumer Beliefs, Product Attributes, Consumption Behavior, and Product Choice** (Miles and Lenz @ Cornell University) - This project was completed in July 1995. The objective of this project was to test the hypothesis that there is a link between consumer attitudes, beliefs, product attributes, and consumer behavior. Our findings indicated that the hypothesized linkages do exist. In particular, when the three milk types--whole, lowfat, and skim--were analyzed, results suggested that consumers were influenced in their milk type choices by their perceptions of the milk types' satisfaction, versatility, health, and nutrition attributes. When competing beverages were incorporated into the analysis, taste attributes also became important.

*Publications:*

Miles, H., S. Schwager, and J.E. Lenz. "Perceptual Dimensions That Influence Consumers' Choices of Milk Type for Beverage Use." *Agribusiness* 11(1995):263-72.

Miles, H., S.J. Schwager, and J.E. Lenz. "Identifying a Reduced Set of Salient Attributes that Influence Consumer's Choice Among Whole, Lowfat, and Skim Milk for Beverage Use." Research Bulletin 94-06, Department of Agricultural, Resource, and Managerial Economics, Cornell University, 1994.

**95-1 Generic and Price Effects of New Product Promotion in the California Almond Industry** (Carman @ University of California, Davis) - This project was completed on December 31, 1996. The objective was to develop estimates of the impact of producer-financed advertising and promotion on the demand for California almonds, and the effects on producer returns in both the short and long run. The econometric model was specified, including advertising, and estimated using two sets of advertising data. The first series for advertising was the fiscal year advertising and promotion expenses for Blue Diamond and the second was calendar year consumer media advertising by Blue Diamond and Dole nuts (collected by LNA). The initial results indicated that advertising had a significant positive effect on the demand for almonds. However, there was some concern of possible

specification problems and future work will focus on correcting these problems.

**95-2 Evaluating U.S. Market Promotion Expenditures in the Japanese Beef Market** (Mittelhammer and Wahl @ Washington State University) - This study will be completed in September of 1996. The primary objective of the project is to evaluate the significance and quantify the effectiveness of MPP/TEA expenditures on promoting and advertising U.S. beef in the Japanese market. An inverse AIDS demand model was developed which disaggregated beef, pork, and chicken commodities into groups based upon origin, including U.S., non-U.S., and domestic (Japanese) origin. The results from all scenarios imply that there is a positive and statistically significant effect of MPP advertising and promotion efforts on Japanese demand for U.S. beef. On the other hand, the effects of MPP advertising and promotion are uniformly insignificant for pork and chicken. In the case of beef, and for the model incorporating only current advertising/promotion efforts, the advertising/promotion coefficient was estimated to be .641. For the model incorporating the partial adjustment mechanism for representing the impact of advertising/promotion, the partial adjustment coefficient was estimated to be .76, with the effect of past advertising/promotion efforts then geometrically declining year by year.

*Publications:*

Comeau, A., R. C. Mittelhammer, and T. I. Wahl. "Assessing the Effectiveness of MPP Meat Advertising and Promotion in the Japanese Market." Paper Submitted at the American Agricultural Economics Association Summer Meetings held in Toronto, Canada, 1997.

Comeau, A., R. C. Mittelhammer, and T. I. Wahl. "Assessing the Effectiveness of MPP Meat Advertising and Promotion in the Japanese Market." NICPRE Research Bulletin 96-20, National Institute for Commodity Promotion Research and Evaluation Research Bulletin Cornell University, December 1996.

**95-3 Linkage of Generic and Brand Advertising: Understanding the Fundamental Differences in a Commodity Market** (Ward and Lee @ University of Florida) - Project was completed on September 30, 1996. This research identified the economic situations where the individual could more effectively impact his/her demand relative to what could be achieved collectively. A theoretical model of industry supply and demand was set forth where checkoff dollars were already incorporated into the demand function. Individual demands for some firms were adjusted as brand advertising was incorporated into the models. While this was not an empirical analysis in the traditional framework, using the theoretical framework and assumed responses,

numerous situations were simulated altering the assumptions (parameters and number n).

*Publications:*

Ward, Ronald W. "Advertising and Promotions," in Agro-Food Marketing. Wallingford: CAB International, 1997.

Ward, Ronald W. "Commodity Promotions: A Global View," in Agricultural Commodity Promotion Policies and Programs in the Global Agri-Food System. Ferrero, Ackerman, and Nichols (eds). Proceedings of the NEC-63 Conference held May 26-27, 1996 in Cancun, Mexico. Ithaca: NICPRE, 1996.

Ward, Ronald W. "Institutional Setting and Issues: Discussant," in Economic Analysis of Meat Promotion. Kinnucan, Lenz, and Clary (eds). Proceedings of the NEC-63 Conference held June 2-3, 1995 in Denver, Colorado. Ithaca: NICPRE, 1995.

Ward, Ronald W. "Economic Returns from the Beef Checkoff." *NICPRE Quarterly* 1(1995):1-3.

Ward, Ronald W. and Wanki Moon. "Evaluating the U.S. Beef Checkoff: An Alternative Approach," in Economic Analysis of Meat Promotion. Kinnucan, Lenz, and Clary (eds). Proceedings of the NEC-63 Conference held June 2-3, 1995 in Denver, Colorado. Ithaca: NICPRE, 1995.

**95-4 Measurement of Agricultural Producer Attitudes Toward Commodity Checkoff Programs** (Clary @ New Mexico State University) - A continuing project until June 1997. The objectives are to: (i) evaluate farmer/rancher attitudes toward commodity promotion programs and commodity checkoff boards; (ii) determine willingness to contribute funding for these programs; (iii) determine the average number of programs that a producer financially supports; (iv) evaluate whether attitudes toward commodity checkoff programs are tied to the number of programs supported by a producer; and (v) determine the extent to which demographic and/or psychographic characteristics can be used to predict support for checkoff programs. Survey participants will be chosen from a purchased list of randomly selected U.S. agricultural producers. Literature from the psychology and marketing fields is being examined to identify possible psychological segmentation constructs. The survey is scheduled for January 1996. A random sample of U.S. producers will be conducted by mail to determine their attitudes and support for checkoff programs. Analysis will be conducted to determine factors that explain differences.

*Publications:*

Villasenor, Martha, Cynda R. Clary, and Robert Steiner. "U.S. Agricultural Producer Attitudes Toward Commodity Checkoff," in Economic Evaluation of Commodity Promotion Programs in the Current Legal and Political Environment. Ferrero and Clary (eds). Proceedings of the NEC-63 Conference held October 7-8, 1996 in Monterey, California. Ithaca: NICPRE, 1997.

**95-5 Optimality of U.S. Pork Export Promotion Program in Japan** (Liu @ University of Minnesota and Kaiser @ Cornell University) - A continuing project since FY95. The objective of the research is to develop a model to determine the optimal level of U.S. export promotion activities in Japan given competition and strategic interaction among major exporting countries. A literature review has been conducted in the area of economic analysis of commodity promotion and in the area of Japanese meat marketing. The next step is to develop and simulate the impacts of a two-stage subgame perfect model. In the second stage of the model, exporting firms choose their decision variables, given the demand conditions for their products in Japan. In the first stage, the commodity organization attempts to shift the demand in favor of its constituents by choosing the optimal level of export promotion activities, given the optimal rule to be played out in the second stage of the game.

*Publications:*

Liu, Donald J. "Strategic Export Promotion: An Introduction," in New Methodologies for Commodity Promotion Economics. Kaiser, Kinnucan, and Ferrero (eds). Proceedings of the NEC-63 Conference held October 5-6, 1995 in Sacramento, California. Ithaca: NICPRE, 1996.

**95-6 U.S. Export Promotion of Bulk Products: Analysis of Federal Wheat Programs** (Henneberry @ Oklahoma State University) - A continuing project in FY96. The objective of this research is to evaluate the effectiveness of U.S. export promotion programs--the Cooperator Market Development Program (CMDP) and the Market Promotion Program (MPP)--on U.S. exports of wheat to selected countries. Econometric models have been constructed to estimate the impacts of promotion expenditures on U.S. market shares. The models include Double-log (Cobb-Douglas), Linear, Translog, and AIDS. The endogenous variables in the first three models are U.S. exports of wheat to the selected markets. The exogenous variables are U.S. and other exporters' wheat prices, rice price, the importing country's GDP, nonprice export promotion variables, and intercept dummy variables. Pooled time-series cross sectional data are used to analyze the period of 1973 through

1993. In addition to FAS contribution to CMDP and MPP, second and third party contributions were also included.

**96-1 Demand Response to Advertising: Methodology and Applications to Commodities of Importance to California** (Alston @ University of California, Davis) - A new project in FY96 to be completed during the period October 1, 1995 to September 30, 1997. The objective of this study is to develop improved methods and measures of the benefits and costs of generic commodity advertising and promotion programs, and to apply those methods to evaluate generic advertising and promotion of agricultural commodities important to California. To date, an econometric study of the California Table Grape industry has been completed, which has been submitted for publication to the Giannini Foundation, and two other papers have been submitted to journals for review. A primary purpose for this project is to develop a new demand system and a new data set on U.S. meat consumption to apply a new model.

*Publications:*

Alston, J. M., J. A. Chalfant, and N. E. Piggott. "Advertising and Consumer Welfare: Scaling versus Translating." Paper Presented to the 41<sup>st</sup> Annual Conference of Australian Agricultural and Resource Economics Society held January 20-25, 1997 in Gold Coast.

Alston, J. M., J. A. Chalfant, and N. E. Piggott. "Advertising and Consumer Welfare." Presented at the NEC-63 Conference held October 7-8, 1996 in Monterey, California.

Alston, J. M., J. A. Chalfant, and N. E. Piggott. "Demand Response and Returns to Incremental Advertising in the Australian Meat Industry," in Economic Analysis of Meat Promotion. Kinnucan, Lenz, and Clary (eds). Proceedings of the NEC-63 Conference held June 2-3, 1995 in Denver, Colorado. Ithaca: NICPRE, 1995.

Alston, J. M., J. A. Chalfant, J. E. Christian, E. Meng, and N. E. Piggott. "The California Table Grape Commission's Promotion Program: An Evaluation," in a forthcoming Giannini Foundation Monograph.

Alston, J.M., J.A. Chalfant, J.E. Christian, E. Meng, and N.E. Piggott. "The California Table Grape Commission's Promotion Program: Overview and Summary," in Economic Evaluation of Commodity Promotion Programs in the Current Legal and Political Environment. Ferrero and Clary (eds). Proceedings of the NEC-63 Conference held October 7-8, 1996 in



Monterey, California. Ithaca: NICPRE, 1997.

Piggott, N. E. "Demand Response to Advertising in the Australian Meat Industry." NICPRE Research Bulletin 96-02, National Institute for Commodity Promotion Research and Evaluation, Cornell University, July 1996.

**96-2 Survey of Commodity Promotion Organizations** (Lenz @ Cornell University and Kinnucan @ Auburn University) - A new project in FY96 that will be completed by December 1996. The objective of this survey is to determine the number of commodity promotion organizations in existence in the United States and to determine their source of funding, the nature of their programs, and the way they are organized to achieve their objectives. A comparison with an earlier survey conducted in 1990 will determine the changes that have occurred over a period of five years. The survey has been completed. The responses are currently being summarized.

**96-3 Ex Post Analysis of Generic Egg Advertising in the United States** (Kaiser, Reberte, and Schmit @ Cornell University) - A new project in FY96 that was completed in August 1996. The objective of the project was to evaluate the impact of generic egg advertising in the United States on egg prices, production, and net producer revenue. The findings indicated that the generic egg advertising had a positive and statistically significant impact on the farm egg price. Generic egg advertising led to a substantial increase in producer net revenue, and the marginal rate of return, which is the ratio of the increase in net revenue to the cost of the advertising program from 1990 to 1995, was 4.69.

#### *Publications:*

Reberte, J. Carlos, Todd M. Schmit, and Harry M. Kaiser. "An Ex Post Evaluation of Generic Egg Advertising in the U.S.," in Economic Evaluation of Commodity Promotion Programs in the Current Legal and Political Environment. Ferrero and Clary (eds). Proceedings of the NEC-63 conference held October 7-8, 1997 in Monterey, California. Ithaca: NICPRE, 1997.

Reberte, J. Carlos, Todd M. Schmit, and Harry M. Kaiser. "An Ex Post Evaluation of Generic Egg Advertising in the U.S." *NICPRE Quarterly* 7(1996):1-2.

Reberte, J. Carlos, Todd M. Schmit, and Harry M. Kaiser. "An Ex Post Evaluation of Generic Egg Advertising in the U.S." Report Given to the American Egg Board in July 1996 at Cornell University.

Reberte, J. Carlos, Todd M. Schmit, and Harry M. Kaiser. "An Ex Post Evaluation of Generic Egg Advertising in the U.S." Paper Presented at the Annual Conference of the Western Economic Association International Association on July 1, 1996 in San Francisco, California.

**96-4 Economic Analysis of Generic Egg Advertising in California** (Kaiser, Schmit, and Reberte @ Cornell University). - A new project in FY96 that was completed in August 1996. Money spent on generic egg advertising in California had a positive and statistically significant impact on egg prices over the ten-year period. The model indicated that a 1 percent increase in advertising expenditure resulted in an average increase of 0.13 percent in the producer egg price, holding all other demand factors constant. Furthermore, a 1 percent increase in real advertising expenditures resulted in a \$2.1 million increase in producer net revenue over the period, 1985-95. This translated into a marginal rate of return of 7.0.

*Publications:*

Schmit, Todd M., J. Carlos Reberte, and Harry M. Kaiser. "An Economic Evaluation of Generic Egg Advertising in California, 1985-95," in Economic Evaluation of Commodity Promotion Programs in the Current Legal and Political Environment. Ferrero and Clary (eds). Proceedings of the NEC-63 Conference held October 7-8, 1996 in Monterey, California. Ithaca: NICPRE, 1997.

Schmit, Todd M., J. Carlos Reberte, and Harry M. Kaiser. "An Economic Evaluation of Generic Egg Advertising in California, 1985-95." *NICPRE Quarterly* 7(1996):2.

Schmit, Todd M., J. Carlos Reberte, and Harry M. Kaiser. "An Economic Analysis of Generic Egg Advertising in California, 1985-95." Report Given to the California Egg Commission in July 1996 at Cornell University.

Schmit, Todd M., Carlos Reberte, and Harry M. Kaiser. "An Economic Analysis of Generic Egg Advertising in California, 1985-95." *Agribusiness* (forthcoming).

**97-1 Predicting Participation in Commodity Checkoffs under Voluntary Programs: An Experimental Economics Approach** (Kaiser and Schulze @ Cornell University). This is a new project in FY97. With the courts reviewing the constitutionality of mandatory commodity checkoff programs, it is possible that these programs will revert back to being voluntary. Therefore, it is important to determine what participation would be, or, alternatively, what free-ridership would be

under alternative voluntary institutional arrangements. This project will use experiments to measure participation in voluntary checkoffs under a variety of institutional settings including mandatory programs with refunds, continuous fee structures, and traditional voluntary programs.

**97-2 The Economics of Milk Advertising with Changes in International Dairy Policy** (de Gorter and Kaiser @ Cornell University). This is a new project beginning in FY97. The goal is to determine the analytical and empirical implications of milk advertising with the current and potential policy changes facing the U.S. dairy sector. Kaiser's econometric model of the national dairy industry will be calibrated to assess the empirical effects while a standard trade model will be developed with advertising to assess the analytical effects of policy changes.

**97-3 Mandatory Commodity Promotion and the Allocation of Producer Levies** (Holloway @ University of California, Davis). This is a new project beginning in FY97. This project derives rules for optimal allocation of farm checkoff revenue, links the rules to observable characteristics of the food marketing industries, and derives empirically refutable propositions about the optimal receipt and disbursement of levies collected for the purpose of funding downstream research and promotion activities.

**97-4 A Comparison of Alternative Methods of Estimating Rates of Return to Promotion** (Davis and Nichols @ Texas A&M University). This is a new project beginning in FY97. This project will compare and assess alternative methods of calculating and estimating rates of return to promotion activities. This methodological study will examine the impact of omitted variables and measurement misspecification on rate of return estimates. This is important in order to see how sensitive rates of return are to model misspecification.

**97-5 Free-Riders in Commodity Research and Promotion Programs** (Tilly and Henneberry @ Oklahoma State University). This is a new project beginning in FY97. The objective of this study will be to identify economic conditions, social behaviors, demographic characteristics, information status, and attitudes of producers that are related to requests for refunds of producer contributions to the wheat checkoff program in Oklahoma and Kansas. The data for the analysis will be generated by a mail survey of producers requesting refunds in these two states.

**97-6 Economic Analysis of USDA's Subsidy Programs for Nonprice Export Promotion** (Kinnucan @ Auburn University). This is a new project beginning in FY97. This project has three broad objectives. First, to determine the differential impact of technical assistance, trade servicing, and consumer promotions on producer welfare. Second, to construct a "promotability index" to

guide allocation decisions across commodities. Finally, to determine the impact of subsidies for export promotion on industry investment in domestic and export promotion.

*Publications:*

Kinnucan, H. W. and H. Xiao. "A Theory of Nonprice Export Promotion with Application to USDA's Subsidy Programs." NICPRE Research Bulletin 96-09, National Institute for Commodity Promotion Research and Evaluation, Cornell University, 1996 (also in review with *American Journal of Agricultural Economics*).

Xiao, H. and H. W. Kinnucan. "Distributions of Gains from Alternative Export Promotion: Strategies in Multi-Stage Production System." (unpublished manuscript).

**97-7 Rates of Return on Individual vs. Collective Promotions** (Alston @ University of California, Davis). This is a new project beginning in FY97. This project will examine issues associated with examining whether rates of return for promotion and advertising activities are higher for individual vs. collective action by producers.

**97-8 NEC-63 Proceedings** (Various editors @ various institutions) This ongoing project publishes proceedings from the various conferences of NEC-63 from 1994 to present.

*Publications:*

Ferrero, J.L., K.Z. Ackerman, and J.P. Nichols (eds). Agricultural Commodity Promotion Policies and Programs. Proceedings of the NEC-63 Conference held May 26-27, 1996 in Cancun, Mexico. Ithaca: NICPRE, 1996.

Goddard, E.W. and D.S. Taylor (eds). Promotion in the Marketing Mix: What Works, Where and Why. Proceedings of the NEC-63 conference held April 28-29, 1994 in Toronto, Ontario, Canada. Guelph: University of Guelph, 1994.

Kaiser, H.M., H.W. Kinnucan, and J.L. Ferrero (eds). New Methodologies for Commodity Promotion Economics. Proceedings of the NEC-63 Conference held October 5-6, 1995 in Sacramento, California. Ithaca: NICPRE, 1996.

Kinnucan, H.W., J.E. Lenz, and C.R. Clary (eds). Economic Analysis of Meat Promotion.

Proceedings of NEC-63 Conference held June 2-3, 1995 in Denver, Colorado. Ithaca: NICPRE, 1995.

Nichols, J.P., H.W. Kinnucan, and K.Z. Ackerman (eds). Economic Effects of Generic Promotion Programs for Agricultural Exports. Proceedings of the NEC-63 Conference held February 22-23, 1990 in Washington, D.C. College Station: Texas A&M University, 1991.

### **Annotated Bibliography of CCPRP Research**

The following is an annotated bibliography of selected research publications conducted and/or sponsored by CCPRP.

#### *Journal Articles*

**Kaiser, Harry M. and J. Carlos Reborte. "Impact of Generic Fluid Milk Advertising on Whole, Lowfat, and Skim Milk Demand." *Journal of Dairy Science* 79(1996):2284-91.**

The purpose of this study was to determine whether there was a statistical difference in sales responsiveness to advertising among consumers of whole, lowfat, and skim milks. A case study for New York City was presented using monthly time series for demand data from 1986 through 1992. Separate demand functions were estimated for whole, lowfat, and skim milks when advertising expenditures for generic fluid milk were used as one of the explanatory variables. The results indicated that long-run advertising elasticities (i.e., percentage change in per capita sales given a 1 percent change in generic fluid milk advertising expenditures) were 0.16, 0.19, and 0.18 for whole, lowfat, and skim milk products, respectively. These estimates were higher than previous estimates for generic fluid milk advertising elasticities in New York City. Based on a one-sided t-test, the long term sales response to generic advertising was significant for all three fluid milk products. Furthermore, the hypothesis that the advertising elasticities for the three milk products are identical could not be rejected at the 10 percent significance level. Therefore, we concluded that generic fluid milk advertising, as currently structured, had a positive and equal impact on whole, lowfat, and skim milk demand.

**Kaiser, Harry M., Olan D. Forker, John Lenz, and Chin-Hwa Sun. "Evaluating Generic Dairy Advertising Impacts on Retail, Wholesale, and Farm Milk Markets." *Journal of Agricultural Economics Research* 44(No. 4, 1994):3-17.**

This article develops a dynamic econometric model of the national dairy industry to simulate the

impacts of generic advertising on the demand for milk and dairy products, farm and consumer prices, and producer welfare. Two advertising scenarios are analyzed: (1) a historic scenario, and (2) a pre-National Dairy Promotion and Research Board (NDPRB) scenario, where generic advertising expenditures are held constant at their quarterly levels during the year prior to the NDPRB's inception. The results indicate that the program has been effective in raising farm prices, increasing dairy product demand, and reducing cheese and butter purchases by the government.

**Kaiser, H.M., D.J. Liu, T.D. Mount, and O.D. Forker. "Impacts of Generic Dairy Promotion on the Retail, Wholesale, and Farm Sectors of the U.S. Dairy Market." *American Journal of Agricultural Economics* 71(1989):1351.**

The impacts of generic dairy promotion at the retail, wholesale, and farm levels are analyzed. The market effects of alternative advertising strategies are different depending upon whether the dairy market is under a competitive or government support regime. Fluid advertising increases consumption and prices more than manufactured advertising.

**Liu, Donald J., Harry M. Kaiser, Olan Forker, and Timothy Mount. "An Economic Analysis of the U.S. Generic Dairy Advertising Program Using an Industry Model." *Northeastern Journal of Agricultural and Resource Economics* 19(1990):37-48.**

The market impacts of generic dairy advertising are assessed using an industry model which encompasses supply and demand conditions at the retail, wholesale, and farm levels, and government intervention under the dairy price support program. The estimated model is used to simulate price and quantity values for four advertising scenarios: (1) no advertising, (2) historical fluid advertising, (3) historical manufactured advertising, and (4) historical fluid and manufactured advertising. Compared to previous studies, the dairy industry model provides additional insights into the way generic dairy advertising influences prices and quantities at the retail, wholesale, and farm levels.

**Reberte, J. Carlos, Harry M. Kaiser, John Lenz, and Olan D. Forker. "Generic Advertising Wearout: The Case of the New York City Fluid Milk Campaign." *Journal of Agricultural and Resource Economics* 21(1996):199-209.**

This article examines two major generic fluid milk advertising campaigns in New York City during the 1986-92 period. Estimates from a time-varying parameter model show that the evolution of the impact of generic advertising on fluid milk sales over each campaign followed a bell-shaped pattern. Results also show that the first campaign was effective for twice as long as the second campaign and that it had a higher peak and higher average advertising elasticity. These findings may reflect long-term generic milk advertising wearout in the New York City market.

**Schmit, Todd M., J. Carlos Reberte, and Harry M. Kaiser. "An Economic Analysis of Generic Egg Advertising in California, 1985-95." *Agribusiness: An International Journal* (forthcoming).**

A supply and demand econometric model of the California egg industry was estimated to evaluate the impact of generic egg advertising on producer prices and returns from 1985-95. Econometric estimation indicated advertising had a positive impact on producer prices and net profits. The model was simulated with existing advertising expenditure levels, and with expenditures 1 percent higher than actual levels. A 1 percent increase in advertising expenditures resulted in an average 0.13 percent increase in producer prices and a marginal rate of return to advertising of 6.9 percent. In other words, each additional dollar spent on advertising generated \$6.90 in producers' profits.

**Suzuki, Nobuhiro, Harry M. Kaiser, John E. Lenz, Kohei Kobayashi, and Olan D. Forker. "Evaluating Generic Milk Promotion Effectiveness with an Imperfect Competition Model." *American Journal of Agricultural Economics* 76(1994):296-302.**

A framework is proposed for incorporating the degree of market competition in evaluating milk promotion effectiveness. The imperfect competition model allows simultaneity in price and quantity with an endogenous fluid milk premium. The model's usefulness is demonstrated with Japanese generic milk promotion data. Results show a conventional exogenous-price or exogenous-premium model will underestimate returns to milk promotion.

**Watanabe, Yasuhito, Nobuhiro Suzuki, and Harry M. Kaiser. "Identifying Consumer Characteristics Associated With Japanese Preferences Toward Milk Products." *Agribusiness: An International Journal* (forthcoming).**

This article identifies consumer characteristics associated with preferences toward milk products. Using Japanese consumer data and Quantification Theory Type III, consumers' milk and other beverage preferences are quantified. The results indicate that men, middle-aged people, and people with no calcium concerns prefer soda and alcoholic beverages to milk beverages, while younger people, larger families, and people with calcium concerns drank more milk more often. The results also indicate that non-milk drinkers, older people, people with no calcium concerns, and men were less inclined to consume cheese and yogurt, and stronger health concerns increased demand for milk and dairy products.

**Forker, O.D. and R.W. Ward. Commodity Advertising: The Economics and Measurement of Generic Programs. New York: Lexington Books, 1993.**

Over \$750 million are spent annually to promote agricultural commodities. Here, for the first time, is a book that explores how that advertising money is raised and spent, the economic effectiveness of commodity promotions, and the differences between commodity and brand advertising. Forker and Ward evaluate the legislation affecting beef and dairy, and state programs such as Florida citrus, California raisins, and Washington apples. Case studies of many other commodity advertising and promotion campaigns, including cotton, wool, pork, fish, soybeans, honey, tomatoes, and potatoes, illustrate the strategies and techniques used to promote these products and to evaluate the effectiveness of the type and intensity of their advertising.

**Forker, Olan D., Harry M. Kaiser, and John E. Lenz. "Public Policy on Program Evaluation and Disclosure of Program Expenditure," in Public Policy in Foreign and Domestic Market Development. Padberg (ed). The Food and Agricultural Marketing Consortium and NEC-63 Research Committee on Commodity Promotion, 1995.**

About \$1 billion is diverted each year from the retail to farm income stream to support commodity promotion programs. Since this is not a trivial amount, this immediately raises a basic question: Does commodity promotion represent the best use of the funds from that income stream? Would farmers, consumers and/or society be better off if that money were invested in other ways, e.g., technology to further reduce production and distribution costs or improve quality? It is hard to answer that question without sound economic analysis. Given the substantial level of investment in commodity promotion, we advocate in this paper public intervention in the economic evaluation of domestic promotion and foreign market development programs. The purpose of the intervention would be to make sure that appropriate economic analyses are conducted to determine whether the programs satisfy the public interest.

**Kaiser, Harry M. and Nobuhiro Suzuki. "Imperfect Competition Models and Commodity Promotion Evaluation: The Case of U.S. Generic Dairy Advertising," in New Methodologies for Commodity Promotion Economics. Kaiser, Kinnucan, and Ferrero (eds). Proceedings of the NEC-63 Conference held October 5-6, 1995 in Sacramento, California. Ithaca: NICPRE, 1996.**

The purpose of this paper is to determine whether the assumption of perfect competition in the U.S. dairy industry biased the findings of economic impacts of generic dairy advertising in the United States. Two models of the U.S. dairy industry were used to simulate the impacts of generic dairy



advertising: (1) an imperfect competition model, and (2) a perfect competition model. The imperfect competition model endogenized the degree of market competition using an approach similar to Appelbaum. The perfect competition model treated the price premiums obtained by cooperatives through bargaining power as exogenous. The imperfect competition model demonstrated that greater market power resulted in larger returns from generic milk advertising than the perfect competition model. Therefore, the traditional perfect competition model may underestimate the magnitude of impacts of the U.S. generic milk advertising.

**Kaiser, H.M., D.J. Liu, O.D. Forker, and T.D. Mount. "Impacts of Dairy Promotion from Consumer Demand to Farm Supply," in Commodity Promotion. Kinnucan (ed). Ames: Iowa State University Press, 1991.**

There are two important methodological implications of this research. The first is the need to conduct policy analysis on both the fluid and manufactured sectors of the dairy market simultaneously, due to the interaction and competition for raw milk between the two sectors. Research on the fluid sector in isolation of the manufactured sector, or vice versa, may miss some important interaction effects of advertising impacting the isolated market. The second implication is the need to use a model that distinguishes between competitive and government support regimes. We have shown that the impact of alternative advertising strategies on important market variables may be quite different depending upon whether or not the market is competitive. Hence, models that assume the market is always noncompetitive may produce misleading results.

**Kaiser, Harry M., Henry W. Kinnucan, and Jennifer L. Ferrero (eds). New Methodologies for Commodity Promotion Economics. Proceedings of the NEC-63 Conference held October 5-6, 1995 in Sacramento, California. Ithaca: NICPRE, 1996.**

On October 5 and 6, 1995, NEC-63 (with the California Agricultural Issues Forum), hosted a conference entitled, "Evaluation of Mandated Promotion Programs." There were two main purposes of the conference: (1) to examine issues and case studies regarding the economic and legal implications of mandatory promotion programs, and (2) to examine new methodologies for economic evaluation of commodity promotion. Due to recent decisions by the Ninth District Court regarding mandatory commodity promotion programs, interest in this conference was extremely high and attendance reached a record for NEC-63 with over 135 people present.

**Liu, Donald J. and Harry M. Kaiser. "The Effectiveness of Generic vs. Brand Advertising Expenditures: The Case of U.S. Dairy Promotion Program," in Economic Evaluation of Commodity Promotion Programs in the Current Legal and Political Environment. Ferrero and Clary (eds). Proceedings of the NEC-63 Research conference held October 7-8, 1996 in**

**Monterey, California. Ithaca: NICPRE, 1997.**

This paper compared the effectiveness of generic vs. branded advertising for fluid milk and cheese. The analysis was based on econometric estimation of fluid milk and cheese demand equations, and simulations of optimal reallocations between generic and branded advertising expenditures. The issue of generic vs. branded advertising effectiveness is particularly timely given recent litigation over the constitutionality of mandatory checkoff programs. The econometric results indicated that generic advertising elasticities were larger than branded advertising elasticities in two out of three equations. However, the simulation results indicated that some reallocation of generic expenditures to branded fluid advertising would result in increases in milk volume and farmers' revenues. A strategic implication of the results is that dairy farmers should consider establishing some type of fund-matching relationship with branded fluid companies.

*Research Bulletins*

**Comeau, Allison, Ron C. Mittelhammer, and Thomas I. Wahl. "Assessing the Effectiveness of MPP Meat Advertising and Promotion in the Japanese Market." NICPRE Research Bulletin 96-20, National Institute for Commodity Promotion Research and Evaluation, Department of Agricultural, Resource, and Managerial Economics, Cornell University, December 1996.**

The government of the United States allocates millions of dollars annually to fund advertising and promotion programs in overseas markets. One such current program is the Market Promotion Program (MPP) which is sponsored by the Foreign Agriculture Service (FAS). The focus of this study is to provide an assessment of the effectiveness of promotion and advertising efforts in enhancing U.S. meat demand in the Japanese market. Based on the inverse AIDS model of Japanese consumer demand for meat analyzed in this study, it can be concluded that MPP/TEA advertising and promotion expenditures in support of U.S. beef demand has been a significant success in strengthening Japanese demand for U.S. beef. Insufficient evidence was found to make a similar claim regarding advertising and promotion expenditures in support of either U.S. pork or U.S. poultry demand.

**Ferrero, Jennifer L. and Harry M. Kaiser. "Commodity Promotion Economics: A Symposium in Honor of Olan Forker's Retirement." NICPRE Research Bulletin 96-2, National Institute for Commodity Promotion Research and Evaluation, Department of Agricultural, Resource, and Managerial Economics, Cornell University, February 1996.**

On December 31, 1995, Olan Forker officially retired from Cornell University after a long and distinguished tenure in the agricultural economics profession. To celebrate his retirement, a

symposium dealing with commodity promotion was held on February 2, 1996, at Cornell University. Over 50 individuals from academia, government, and industry attended this one day symposium. This research bulletin is a proceedings of all the presentations given.

**Ferrero, Jennifer L., Leen Boon, Harry M. Kaiser, and Olan D. Forker. "Annotated Bibliography of Generic Commodity Promotion Research (Revised)." NICPRE Research Bulletin 96-3, National Institute for Commodity Promotion Research and Evaluation, Department of Agricultural, Resource, and Managerial Economics, Cornell University, February 1996.**

The purpose of this publication is to present relevant scholarly work directly related to generic commodity advertising and promotion research and evaluation in an easy-to-use form for further study and research. Sources for the annotations include professional journals, books, university staff and working papers, and unpublished reports by commodity consulting firms. This report provides an update to an earlier annotated bibliography on commodity promotion evaluation done at Cornell (Hurst, S. and O.D. Forker (1991). "Annotated Bibliography of Generic Commodity Promotion Research (Revised)." A.E. Res. 91-7, Department of Agricultural Economics, Cornell University, Ithaca, NY. 48pp). The earlier report covered the period between 1961 and 1991, this report covers the period 1992-1996. This bibliography was produced in order to create a base for continuing economic research on how generic advertising influences consumer behavior. It is hoped that this will be of interest to and help professionals in academia, government, and industry who are interested in and involved with economic analysis of commodity promotion programs.

**Kaiser, Harry M. "An Analysis of Generic Dairy Promotion in the United States." NICPRE Research Bulletin 95-1, National Institute for Commodity Promotion Research and Evaluation, Department of Agricultural, Resource, and Managerial Economics, Cornell University, July 1995.**

This is the first research bulletin published by NICPRE. The mission of NICPRE is to enhance the overall understanding of economic and policy issues associated with commodity promotion programs. An understanding of these issues is crucial to ensuring continued authorization for domestic checkoff programs and to fund export promotion programs. The intent of this first NICPRE research bulletin is to assist program managers on the National Dairy Promotion and Research Board to better understand the economic impacts of their advertising and promotion efforts. The bulletin will help program managers consider the impacts of various allocation strategies used for promoting different milk and dairy products. Future NICPRE research bulletins will look at similar topics regarding other agricultural commodities.

**Kaiser, Harry M. "Impact of National Dairy Advertising on Dairy Markets, 1984-95." NICPRE Research Bulletin 96-5, National Institute for Commodity Promotion Research and Evaluation, Department of Agricultural, Resource, and Managerial Economics, Cornell University, July 1996.**

The purpose of this study was to analyze the impacts of generic dairy advertising by the National Dairy Promotion and Research Board on retail, wholesale, and farm dairy markets. A disaggregated industry model of the retail, wholesale, and farm levels with markets for fluid milk, frozen products, cheese, and butter was developed to conduct the analysis. An econometric model of the dairy industry was estimated using quarterly data from 1975-95. The econometric results were then used to simulate market conditions with and without the NDPRB. The results indicated that the NDPRB had a major impact on market conditions. Over the life of the national program, the NDPRB had an impact on fluid and cheese markets, government purchases under the Dairy Price Support Program, and farm markets. Moreover, based on simulation results for the most recent year, the impacts of the NDPRB are even larger.

**Kaiser, Harry M. and Olan D. Forker. "Analysis of Generic Dairy Advertising Scenarios on Retail, Wholesale, and Farm Milk Markets." A.E. Res. 93-3, Department of Agricultural Economics, Cornell University, June 1993.**

An econometric model of the United States dairy industry is used to simulate the economic impact of alternative strategies in the generic advertising of dairy products. Advertising programs for fluid milk, cheese, and butter are considered. The historic quarterly advertising expenditure levels experienced during the period October 1984 through December 1990 are used as a basis of comparison. A national model enables the analyst to simultaneously estimate the impact of changes in advertising expenditures on price and volume of sales at the retail, wholesale, and farm levels of trade. The impact on government purchases can also be estimated.

**Kaiser, Harry M. and J. Carlos Reberte. "Impact of Generic Fluid Milk Advertising on Whole, Lowfat, and Skim Milk Demand." NICPRE Research Bulletin 95-2, National Institute for Commodity Promotion Research and Evaluation, Department of Agricultural, Resource, and Managerial Economics, Cornell University, July 1995.**

The purpose of this study was to determine whether there is a statistical difference in sales responsiveness to advertising among whole, lowfat, and skim milk consumers. A case study for New York City which used monthly time series demand data from 1986 through 1992 is presented. Separate per capita demand functions were estimated for whole, lowfat, and skim milk when per capita generic fluid milk advertising expenditure was used as one of the explanatory variables. Other explanatory variables of per capita sales included retail prices of whole, lowfat, and skim milk, retail

price of orange juice, per capita income, and a health index representing consumer concerns about fat in one's diet. The results suggest that the current message of the fluid milk advertising campaign in New York City is explicitly influencing actual and potential whole and lowfat milk drinkers rather than skim milk consumers. Therefore, it can be concluded that under campaigns that do not differentiate among the three main fluid milk products, it would be better to target actual or potential consumers of whole and lowfat milk rather than skim milk drinkers in New York City. It is clear that any attempt to influence skim milk demand would require a change in the current message. In addition, since the sales responsiveness to advertising among the three products are found to be different, future research should study the separate impact of generic fluid milk advertising on each fluid milk product. It would be useful to apply this analytical approach to other markets to determine whether similar conclusions might hold, or whether the New York City market is unique in its response to generic fluid milk advertising.

**Kinnucan, Henry W. and Hui Xiao. "A Theory of Nonprice Export Promotion with Application to USDA's Subsidy Programs." NICPRE Research Bulletin 96-19, National Institute for Commodity Promotion Research and Evaluation, Department of Agricultural, Resource, and Managerial Economics, Cornell University, December 1996.**

The theory of nonprice export promotion developed in this paper suggests that subsidies for export promotion provide incentives to invest more in export promotion, less in domestic promotion, and more in promotion in toto. The key issue, then, is: do promotion subsidies targeted at the export market have beneficial effects overall, or are they merely redistributive, robbing Peter to pay Paul? Investigating this question with respect to the federal subsidy programs aimed at the agricultural sector, our empirical analysis is affirmative. That is, we find that a dollar increase in the anticipated subsidy induces industry to expand its total promotion budget by an estimated \$1.54, with 60 percent of the increment (92 cents) going to domestic market promotion and 40 percent (62 percent) going to export promotion. Although our results suggest that the USDA's subsidy programs have had a stimulative effect on promotion expenditures in both the domestic and the export market, we caution that this does not necessarily imply subsidy programs are beneficial from a social welfare perspective...Still, if the goal is simply to increase private sector investment in export promotion without doing damage to domestic market promotion, it appears subsidy programs have been highly effective.

**Liu, Donald J., Harry M. Kaiser, Olan Forker, and Timothy Mount. "The Economic Implications of the U.S. Generic Dairy Advertising Program: An Industry Model Approach." A.E. Res. 89-22, Department of Agricultural Economics, Cornell University, November 1989.** The purpose of this paper is to examine the impact of U.S. generic dairy advertising on milk price and

volume at the retail, wholesale, and farm level in the dairy sector. To improve on earlier studies, the analysis was based on a dairy industry model encompassing supply and demand conditions in various markets within the dairy sector and government intervention of the dairy price support program. Consequently, additional insights concerning the impact of generic dairy advertising were realized. The model was recursive in that the farm milk supply is predetermined in each period. The retail-wholesale subsystem was estimated simultaneously while the farm milk supply equation was estimated separately. The estimated model was used to simulate price and quantity values under four advertising scenarios: (1) no advertising, (2) historical fluid advertising, (3) historical manufactured advertising, and (4) historical fluid and manufactured advertising. The results indicated that generic advertising, particularly fluid milk advertising, had substantial impacts on market variables such as prices and quantities.

**Reberte, J. Carlos, Harry M. Kaiser, John Lenz, and Olan D. Forker. "Generic Advertising Wearout: The Case of the New York City Fluid Milk Campaign." NICPRE Research Bulletin 96-1, National Institute for Commodity Promotion Research and Evaluation, Department of Agricultural, Resource, and Managerial Economics, Cornell University, January 1996.**

This paper examines two major generic fluid milk advertising campaigns in New York City during the 1986-92 period. Estimates from a time-varying parameter model show that the evolution of the impact of generic advertising on fluid milk sales over each campaign follows a bell-shaped pattern. Results also show that the first campaign was effective for twice as long as the second campaign and that it had a higher peak and average advertising elasticity. These findings may reflect long-term generic milk advertising wearout in the New York City market.

**Reberte, J. Carlos, Todd M. Schmit, and Harry M. Kaiser. "An Ex Post Evaluation of Generic Egg Advertising in the U.S." NICPRE Research Bulletin 96-15, National Institute for Commodity Promotion Research and Evaluation, Department of Agricultural, Resource, and Managerial Economics, Cornell University, October 1996.**

A model of the U.S. egg industry was estimated to evaluate the impact of the AEB generic advertising program on producers' returns over the 1990-95 period. The estimated model was simulated under two alternative scenarios: a) with advertising expenditures set at historical levels in real terms, and b) with a 1 percent increase in expenditures. Based on these simulations, changes in producers' surplus due to advertising and marginal returns to advertising expenditures were calculated. Econometric results indicate that the national generic egg promotion program had a substantial impact on wholesale and farm prices. This translated into an estimated marginal IRR of 49.1 percent, and a marginal rate of return on advertising of 4.69:1. While the estimated IRR suggests that the AEB's investment on advertising performed well, it is not possible to evaluate the

profitability of the advertising program relative to those of alternative programs.

**Schmit, Todd M., J. Carlos Reberte, and Harry M. Kaiser. "An Economic Evaluation of Generic Egg Advertising in California, 1985-95." NICPRE Research Bulletin 96-14, National Institute for Commodity Promotion Research and Evaluation, Department of Agricultural, Resource, and Managerial Economics, Cornell University, October 1996.**

A supply and demand econometric model of the California egg industry was estimated to evaluate the impact of generic egg advertising in the state on producer prices and returns over the past ten years. Econometric estimation indicated advertising efforts have had a positive impact on producer prices and net profits. The model was simulated with existing advertising expenditure levels, and with expenditures 1 percent higher than actual levels. A 1 percent change in advertising expenditures resulted in an average 0.13 percent increase in producer prices and a marginal rate of return to advertising of 7.0. In other words, each additional dollar spent on advertising generated \$7.00 in producers' profits. The estimated returns to generic egg advertising in California indicate that advertising efforts in the state have been quite profitable.

**Suzuki, Nobuhiro, Harry M. Kaiser, John E. Lenz, and Olan D. Forker. "Evaluating U.S. Generic Milk Advertising Effectiveness using an Imperfect Competition Model." A.E. Res. 93-8, Department of Agricultural Economics, Cornell University, July 1993.**

An analytical model to evaluate the effectiveness of U.S. generic milk advertising which incorporates the degree of market competition is presented. Unlike traditional perfect competition models, the imperfect competition model allows for simultaneous movement of both price and quantity with an endogenous fluid (Class I) price differential. The simulation results of the imperfect competition model are compared with the conventional exogenous fluid price differential model. It is shown that the conventional fixed fluid price differential model may understate the effectiveness of U.S. generic milk advertising in terms of returns to producers.

**Suzuki, Nobuhiro, John E. Lenz, Harry M. Kaiser, K. Kobayashi, and Olan D. Forker. "Measurement of Generic Milk Promotion Effectiveness using an Imperfect Competition Model." Working Paper 93-6, Department of Agricultural Economics, Cornell University, May 1993.**

An analytical model to evaluate milk promotion effectiveness incorporating the degree of competition is presented. The imperfect competition model allows for simultaneous movement of both price and quantity with an endogenous fluid milk premium. The model's usefulness is demonstrated using the Japanese generic milk promotion data. The results show that a conventional exogenous-price model will underestimate returns to milk promotion.

**Watanabe, Yasuhito, Nobuhiro Suzuki, and Harry M. Kaiser. "Identifying Consumer Characteristics Associated With Japanese Preferences Towards Milk Products." NICPRE Research Bulletin 96-16, National Institute for Commodity Promotion Research and Evaluation, Department of Agricultural, Resource, and Managerial Economics, Cornell University, October 1996.**

The purpose of this paper was to determine key characteristics of consumers associated with preferences towards milk products in Japan. The analysis was based on data from a Japanese consumer survey conducted by the NMPAJ, and a technique known as Quantification Theory Type III was used to quantify consumer preference for milk and other beverages. Cluster analysis was then used to identify key demographic and socioeconomic characteristics associated with alternative degrees of preference for milk products.



**OTHER A.R.M.E. RESEARCH BULLETINS**

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